## **ABSTRACT**

## A MULTI-SENSOR FIRE DETECTOR WITH REDUCED FALSE ALARM PERFORMANCE

A method of detecting a combustion chemical in a region and setting an alarm based on concentration levels of the combustion chemical comprises the steps of: monitoring the region for a combustion chemical with a sensor having a measurable parameter which changes in value proportional to concentration levels of the monitored combustion chemical, the measurable parameter being ambient temperature dependent; generating an ambient temperature measurement of the sensor; reading the measurable parameter and ambient temperature measurement; processing the measurable parameter and ambient temperature measurement readings to generate a temperature compensated concentration level of the monitored combustion chemical; and setting an alarm based on the generated temperature compensated concentration level. A fire detector unit for implementing the foregoing described method is also disclosed.